UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,272	06/05/2001	Barry Appelman	06975-054001	6031

26171 7590 12/21/2004

FISH & RICHARDSON P.C.
1425 K STREET, N.W.
11TH FLOOR
WASHINGTON, DC 20005-3500

EXAMINER
NGUYEN, TRONG NHAN P

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/873,272	APPELMAN, BARRY	
	Examiner	Art Unit	
	Jack P Nguyen	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/5/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-37 are being examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 37 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 37 recites, "...computer readable medium comprises a propagated signal". A computer readable medium (a medium where data can be read from, e.g., disk) cannot comprise a signal. A signal can pass through it to read or store data but the disk itself cannot comprise it. The disk comprises, not limiting, tracks, sectors, etc.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12, line 2 states, "... determining the digital at..." For the purpose of examination, Examiner regards the word "signature" is missing

after the word "digital" stated above. Appropriate correction is required. Claims 33-35 recite "...computer readable medium comprises requestor, provider, or intermediate nodes..." Again, referring to the definition of computer readable medium explained above, a disk cannot comprise a node. A node is interpreted as a computer or workstation or similar devices. A disk is a component of a computer; therefore, as a component, it cannot comprise of the entire apparatus itself.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman, WO 97/38434 (Appelman hereafter) in view of Hurtado et al, 6,611,812 (Hurtado hereafter).

As per claim 1, Appelman teaches a method for improving performance by increasing available bandwidth in a network system that includes one or more requestor nodes (2', fig. 2; client), one or more provider nodes (4', fig. 2; web server) and one or more intermediate nodes (10', fig. 2; web proxy server) (abstract), the method comprising: determining the requested file stored by at least one provider node in the network system; looking up the file in an index of files (500; fig. 5; page 7, line 24 – page 8, line 3; client sends request to server (via proxy server) to retrieve a file; after

looking up the file, server sends the file to proxy server (inherent in the process of determining which is being requested file to send back to the proxy server)); and forwarding a previously compressed version of the requested file that has been stored at an intermediate node to requestor (page 6, lines 17-21). Appelman does not teach a digital signature associated with a file stored by provider. It is well known in the art and is also disclosed by Hurtado to create a digital signature of a file by encrypting the content of the file (col. 16, lines 53-56). Hence, it would have been obvious to one of ordinary skill in the art to be motivated to use a digital signature to represent the encrypted representation of a file to ensure only authorized users can have access to the data thus preventing unauthorized manipulations or alterations of the data.

Claims 22 and 30 recite similar limitations to claim 1; therefore, they are rejected for similar reasons as claim 1 addressed above.

As per claims 2, 23 and 31, Appelman does not teach storing the digital signature in the index of signatures when the digital signature is not found in the index of signatures. However, it is well known in the art and would have been obvious to one of ordinary skill in the art to be motivated to update and store a new data (e.g., digital signature) in the database table when the data is not found after searches for future use and reference.

Claims 3, 4, 24, and 32 are rejected for similar reasons as claim 1 above. Appelman further teaches storing the compressed version of the requested file at the intermediate node (page 6, lines 17-21).

As per claims 5-7, Appelman does not explicitly disclose determining the digital

signature comprises applying a hashing technique to the requested file. Hurtado teaches using a hash algorithm (e.g., MD5, SHA, etc) to encrypt the file in creating a digital signature (col. 17, lines 8-18). Hence, it would have been obvious to one of ordinary skill in the art to use any of the hash algorithms to create a digital signature from a file by encrypting the file.

As per claim 8, Appelman teaches determining whether an estimated time required to directly provide the requested file to a requester node is less than an estimated time to determine if a previously compressed version of the requested file is already stored at the intermediate node (page 8, lines 18-21).

Claims 9-17, 20-21, 25-29 are rejected for similar reasons as claim 1 above. Appelman further teaches the internediate node comprises a caching server (page 5, lines 10-11). Appelman does not teach IP tunnel. However, it is well known in the art that encrypted data is shared between nodes in the network is known as IP tunneling as disclosed by Hurtado (col. 16, lines 56-60).

As per claims 18-19, Appelman does not explicitly disclose receiving the index of digital signatures from a provider or intermediate nodes. It is well known in the art for a database to store an index of its data for retrieval or manipulations. Hence, it would have been obvious to one of ordinary skill in the art to share the index of data among databases at different server sites for consistent data retrieval or manipulations.

Claims 33-35 are rejected for similar reasons as claim 1 above.

As per claims 36-37, Appelman teaches a computer readable medium comprises

a disc or propagated signal (page 1, line 10; disc or propagated signal is inherent in a personal computer or server).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Epstein, 6,601,172; Serret-Avila et al, 6,785,815 ; Bodin et al, 6,604,106 ; Davis, 5,907,619 ; Davis, 6,357,004 ; Chiu et al, 6,076,111 ; Lafe et al, 6,449,658 ; Huded, 6,629,150

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack P Nguyen whose telephone number is (571) 272-3945. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jpn